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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,976	03/14/2002	Manfred Kogler	1406/34	3027
25297	7590	05/23/2006	EXAMINER	
JENKINS, WILSON, TAYLOR & HUNT, P. A.			GHULAMALI, QUTBUDDIN	
3100 TOWER BLVD			ART UNIT	
SUITE 1200			PAPER NUMBER	
DURHAM, NC 27707			2611	

DATE MAILED: 05/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,976

Applicant(s)

KOGLER, MANFRED

Examiner

Qutub Ghulamali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Acknowledgment

1. This Office Action is responsive to the Amendment filed on 02/23/2006.
2. The examiner acknowledges applicant's amendment to the drawings, Figures 1 and 2. The drawings are considered acceptable.
3. The specification as amended by the applicant submitted 02/23/2006, is acknowledged. The specification is considered acceptable.
4. The objection to claims 1, 2, 6-8 as amended by the applicant, is considered acceptable. The objection is withdrawn.
5. The rejection of claim 6, under 35 U.S.C 112, 2nd, as amended by the applicant is considered acceptable. The rejection is withdrawn.

Specification

6. The abstract of the disclosure is objected to because of following. The abstract begins with "Codec circuit having a programmable digital bandpass filter.", is repetitious and can be deleted. The use of "can" at various places in the abstract must be avoided and should be replaced with "is" or "are" as appropriate. The examiner suggest the following:
 7. -- A codec circuit having a programmable digital bandpass filter is disclosed.

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The bandpass filter match the filter characteristics of the codec circuit to a transmitted pulse code modulation (PCM) signal. The codec circuit includes at least one programmable digital high-pass filter connected in series to at least one programmable digital low-pass filter. The setting filter characteristics for the programmable digital high-pass and low-pass filters is each set by means of a signal identification device for identifying a PCM signal transmitted through the codec circuit. The filters are set as a function of the transmitted PCM signal in order to vary a bandpass filter characteristic for the programmable digital bandpass filter --.

Correction is required. See MPEP § 608.01(b).

Claim Objections

8. Claims 1, 7, 8 are objected to because of the following informalities:

In claim 1, line 6, after "filter" "can" should be replaced with -- is -- . In the same line "be" after "each" should be deleted.

In claims 7 and 8, line 2, "can be" should be replaced with -- is --, and the second "setting" should be deleted. Appropriate correction is required.

Response to Remarks/Amendment

9. Applicant's amendment/remarks filed February 23, 2006, have been fully considered but they are not persuasive.

In response to applicant's remarks/argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies

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(i.e., microprocessor first identifies the incoming PCM signal and then the microprocessor selects the ranges of the coefficient in accordance with the identified PCM signal, see applicant's remarks page 11) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F. 2d 1181, 26 USPQ 2d 1057 (Fed. Cir. 1993).

The applicant further alleges that rejection under 35 U.S.C 103(a) to Chung fail to teach or suggest a signal identification device for identifying a PCM signal. The examiner respectfully would like to draw applicant's attention to Chung, col. 4, lines 20-27, wherein Chung discloses transferring the PCM samples to a time slot assigning circuit for receiving the PCM samples from the PCM highway wherein the path is first recognized (identified) for processing the PCM samples. The examiner understands that the claim limitations are adequately represented in Chung's disclosure, and therefore the rejection of claims 1 and 2-9 are still maintained.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (USP 5,058,047) in view of Mathe (USP 6,389,069).

Regarding claim 1, Chung discloses a codec circuit: having a programmable digital bandpass filter (30), for matching the filter characteristics of the codec circuit to a transmitted PCM signal (col. 4, lines 9-13, 19-33, 35-38), having at least one programmable digital high-pass filter (32). Chung however, does not explicitly disclose at least one programmable digital low-pass filter connected in series, wherein the filter coefficients for the programmable digital high-pass and low-pass filters are set, by means of a signal identification device for identification of a PCM signal transmitted through the codec circuit, as a function of the transmitted PCM signal in order to vary a bandpass filter characteristic for the programmable digital bandpass filter.

Mathe in a similar field of endeavor discloses (fig. 1):

at least one programmable digital low-pass filter (30-38) connected in series with the high pass filter, wherein the filter coefficients for the programmable digital high-pass (14) and low-pass filters (30-38) are set, by means of a signal identification device (processor 24) for identification of a PCM signal transmitted through the codec circuit, as a function of the transmitted PCM signal in order to vary a band-pass filter characteristic for the programmable digital band-pass filter (col. 3, lines 1-15, 49-60; col. 5, lines 9-16; col. 8, lines 20-27). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use programmable high-pass and low-pass filters as taught by Mathe in the circuit of Chung because it can provide programmable coefficients maximization control over the composite transfer function of the programmable digital filter and at the same time minimize or mitigate power consumption.

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Regarding claim 2, Chung discloses setting filter coefficients are stored in coefficient memory devices, which are associated with the programmable digital high-pass and low-pass filters (col. 5, lines 21-30).

Regarding claim 3, Chung discloses the memory devices can be in the form of a random access memory (RAM) (col. 8, lines 1-3).

Regarding claim 4, Chung discloses memory devices are connected via coefficient setting lines to the signal identification device (col. 7, lines 64-67; col. 8, lines 1-3).

Regarding claim 5, Chung discloses programmable digital filters ((x) 30 and (40)) can be each seventh-order filters (col. 3, lines 23-30; col. 4, lines 35-37, 52-55).

Regarding claims 6-9, Chung discloses programmable filters whose roll-off (cut-off) frequencies of the band-pass filter are set by setting the filter coefficients of the digital high-pass filter quite easily and is well known in the art of filter design.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday, 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG
May 15, 2006.


JEAN B. CORRIELUS
PRIMARY EXAMINER

5.20.06